



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,152	06/20/2001	Katsuhiko Iwashita	209802US2	3534

22850 7590 07/07/2003

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

PETKOVSEK, DANIEL J

ART UNIT	PAPER NUMBER
----------	--------------

2874

DATE MAILED: 07/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/884,152

Applicant(s)

IWASHITA ET AL.

Examiner

Daniel J Petkovsek

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on April 16, 2003 (amendment A).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 5-13, and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-20 is/are allowed.
- 6) ☒ Claim(s) 5-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: Brian Healy

Art Unit: 2874

### DETAILED ACTION

This office action is in response to the amendment filed on April 16, 2003. In accordance with the amendment, claims 1-4, and 14-15 have been canceled; claims 5, 13, and 16 have been amended; and new claim 20 has been added. The change to the title has been acknowledged.

#### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The statement, "said optical waveguide to project from the other part" is vague and unclear what the waveguide and region around waveguide is projecting from.

#### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. U.S.P. No. 6,257,769, and further in view of Yamane et al. U.S.P. No. 5,566,262.

Art Unit: 2874

Watanabe et al. U.S.P. No. 6,257,769 teaches (Abs, Figure 5, column 2 lines 18-63) a prior art optical waveguide module comprising: a waveguide chip having connecting members on opposite ends of the waveguide chip, optical fiber ribbons 21 connecting at least one optical fiber to the waveguide through a second connector member, a clamp spring presser member 24 for maintaining connection of fiber/waveguide, in which direct contact between the optical waveguide and optical fiber results (column 2 lines 30-36). Watanabe et al. '769 does not explicitly teach that the ribbon member allows a region around the core including the core of the optical fiber to project from an end face of the connection member.

Yamane et al. 5,566,262 teaches (ABS, Fig. 8, column 7 lines 54-67) an array member for fiber optical connection in which the optical fiber core 12a and region around the core 12 are projected from the end of a connection member 11. This array member is attached optically to another waveguiding component.

Since Watanabe et al. '769 and Yamane et al. '262 are both from the same field of endeavor, the purpose of extending the optical fiber core and region around the core from the end of the connection member to improve coupling contact efficiency and to reduce unwanted contact, as disclosed by Yamane et al. '262, would have been recognized in the pertinent art of Watanabe et al. '769.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use an optical connection with fibers that project from the body of the connection device of Yamane et al. '262 for the purpose of improving coupling contact efficiency and reducing unwanted contact during alignments.

Art Unit: 2874

Regarding claims 6-8, the fiber array members are (Figs. 1, 3, and 10) modulated/cut away and, although the eccentric/reduction in diameter properties are not explicitly taught, these changes are obvious modifications of an optical fiber transmitting signals to improve coupling efficiency. Regarding claims 11 and 12, a buffer layer between the auxiliary member and the waveguide would have been obvious to a person having ordinary skill in the art since contact is not desired between the optical fiber core region and the auxiliary connection member during the alignment process of Watanabe et al. '769. Any contact would decrease coupling efficiency and increase error.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. U.S.P. No. 6,257,769, and further in view of Dragone et al. U.S.P. No. 5,235,658.

Watanabe et al. U.S.P. No. 6,257,769 teaches (Abs, Figure 5, column 2 lines 18-63) a prior art optical waveguide module comprising: a waveguide chip having connecting members on opposite ends of the waveguide chip, optical fiber ribbons 21 connecting at least one optical fiber to the waveguide through a second connector member, a clamp spring presser member 24 for maintaining connection of fiber/waveguide, in which direct contact between the optical waveguide and optical fiber results (column 2 lines 30-36). Watanabe et al. '769 does not explicitly teach that the ribbon member allows a region around the optical waveguide including the waveguide to project from the other part.

Dragone et al. 5,235,658 teaches (Figs. 4-6, column 4 lines 6-68) a waveguide member for optically connecting fibers to waveguides in which the waveguide 34 and the region around the waveguide 34 are projecting to improve coupling efficiency to the

Art Unit: 2874

optical fiber 40. This waveguide array member is attached optically to another fiber optic component.

Since Watanabe et al. '769 and Dragone et al. '658 are both from the same field of endeavor, the purpose of extending the optical waveguide core and region around the core from the end of the waveguide to improve coupling contact efficiency and to reduce unwanted contact, as disclosed by Dragone et al. '658, would have been recognized in the pertinent art of Watanabe et al. '769.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use an optical connection with the waveguide and the region surrounding the waveguide that project from the waveguide body of Dragone et al. '658 for the purpose of improving coupling contact efficiency and reducing unwanted contact during alignments to optical fibers.

***Allowable Subject Matter***

6. Claims 16-20 are allowed. See paper number 3 for reasons for allowability of claims 16-19. New claim 20 has been acknowledged as having subject matter supported by the specification, and is dependent on allowable independent claim 16.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, with respect to the state of the art of fiber to waveguide optical connection modules: PTO-892 form references C-E, and N.

The amendment filed on April 16, 2003 has been fully considered. The changes to the title have been acknowledged. Upon further consideration, previously indicated

Art Unit: 2874


allowable subject material (claims 5-10, and 13 of paper number 3) has been withdrawn. The new rejections of amended claims 5-13 under 35 U.S.C. 103 (a) has been fully addressed above.


Since new grounds of rejections under 35 U.S.C. 103 (a) to claims 5-13 have been made, as well as the withdrawal of previously indicated allowable subject material, this action is made **NON-FINAL**.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J Petkovsek whose telephone number is (703) 305-6919. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (703) 308-4819. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 872-9321.

  
Daniel Petkovsek  
June 24, 2003

  
Brian Healy  
Primary Examiner